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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,964	03/27/2007	Andreas Benner	022862-1096	1374
34044 7590 10/12/2010 MICHAEL BEST & FRIEDRICH LLP 100 EAST WISCONSIN AVENUE MILWAUKEE, WI 53202				
EXAMINER				
GRAHAM, GARY K				
ART UNIT		PAPER NUMBER		
3727				
MAIL DATE		DELIVERY MODE		
10/12/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,964

Applicant(s)

BENNER, ANDREAS

Examiner

Gary K. Graham

Art Unit

3727

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 8-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuta et al (US patent 6,378,160) in view of Frey et al (US patent 5,337,439).

The patent to Kakuta discloses the invention substantially as is claimed. Kakuta discloses a wiper device including a wiper shaft (1) that is provided with a recess (1a) and means (2,8) for accommodating the wiper shaft such that a free end (1c) protrudes therefrom. An annular locking element (10), provided with an interruption (between ends 10a), is arranged in the recess and is used for partially locking the wiper shaft in the axial direction in the accommodating means. The locking element rests on a stop disk (9) which is supported by the accommodating means. The locking element has an essentially round transverse cross-section. The recess has at least one approximately 45 degree slope (1b) in the axial direction of the shaft, along which the locking element can glide when a predetermined force is applied to the wiper shaft.

The patent to Kakuta discloses all of the above recited subject matter with the exception of the locking element having an essentially rectangular cross-section.

The patent to Frey discloses a wiper device (fig.1) wherein a locking element (8) having an essentially rectangular cross-section and interruption (11) is provided in a recess (6) in the wiper shaft (1). The recess includes an approximately 45 degree slope (7) to enable the locking element to glide thereupon when a sufficient axial force (12) is applied to the shaft.

It would have been obvious to one of skill in the art to provide the locking element of Kakuta as essentially rectangular in cross-section instead of round, as clearly suggested by Frey, to increase the material contact with the stop disk thus reducing stress concentrations as well as a mere art recognized equivalent shape for the locking element. Both round and rectangular cross-sections are known.

With respect to claim 1 and the phrase relating to the manner in which the angle of slope is determined, such does not appear to distinguish from Kakuta. Such appears to relate to the method in which the wiper device is made and does not incorporate any particular structure to the recess that is not disclosed by Kakuta.

With respect to claims 4, 11, 12, 19 and 20, while Kakuta does not discuss a particular force or load to cause release of the locking element, to select such does not appear inventive. One of skill in the art would by routine experimentation find the optimal force required to cause release of the locking element to enable shaft movement in a manner to prevent damage to the vehicle body or other components. The particular ranges set forth do not appear to produce a new and unexpected result which is different in kind and not merely degree from that which is suggested by Kakuta.

With respect to claim 8, setting forth that the locking element is embodied as a stamped part does not act to distinguish from the element disclosed by Kakuta. Such relates to the method of making the locking element and is not distinguishable in the product claim, at least not here.

Claims 7 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakuta et al (US patent 6,378,160) in view of Frey et al (US patent 5,337,439) as applied to claims 1, 4, 5, 6 and 13 above, and further in view of Horng (GB publication 2,375,158).

The patents to Kakuta and Frey disclose all of the above recited subject matter with the exception of the recess having a tub-shaped structure defining two sloped areas on opposite sides of a seat area.

The publication to Horng discloses that fastener receiving recesses (12, fig. 6) in rotary shafts (1) can be tub-shaped to define a bottom seat area with first (132) and second (142) sloped areas on each side thereof. The recess is adapted to receive a locking component (3) in clip or washer form. The recess is so shaped to reduce sharp edges and therefore reduce the possibility of damage to the bearing (94) during assembly of the shaft therein.

It would have been obvious to one of skill in the art to provide the recess of the modified Kakuta device with an additional sloped area on the opposite side of the seat area from the first sloped area, as clearly suggested by Horng, to reduce the possibility of damage to the bearing (8) during assembly.

With respect to claim 15, setting forth that the locking element is embodied as a stamped part does not act to distinguish from the element disclosed by Kakuta. Such relates to the method of making the locking element and is not distinguishable in the product claim, at least not here.

Response to Arguments

Applicant's arguments filed 30 July 2010 have been fully considered but they are not persuasive.

Applicant's arguments with respect to Kakuta are noted but not persuasive. Applicant initially argues that Kakuta does not teach or suggest each and every element of claim 1, in that Kakuta does not suggest a locking element having a substantially rectangular cross section. While such is true, such has been addressed above in the combination rejection of Kakuta in view of Frey. Arguing that Kakuta does not teach each element by himself in the combination rejection is not particularly persuasive. As set forth above, Frey clearly suggests locking elements having essentially a rectangular transverse cross section. Thus, to make the locking element of Kakuta as essentially rectangular in transverse cross section, as clearly taught by Frey, does not appear inventive.

Applicant also argues that Kakuta does not teach or suggest a structure in which a maximum load is easily calculable. Such is not persuasive in overcoming the rejection. The relative ease or difficulty with which a maximum load can be calculated from structure suggested by Kakuta/Frey does not appear at issue with respect to the claims. Kakuta/Frey disclose all of the claimed structure. Additionally, as the combination of Kakuta and Frey results in the claimed structure it is unclear how applicant has determined that load calculation will be more difficult. Applicant goes on to argue that the axial force that is required to push in the wiper shaft of Kakuta is too undefined. Again, as the combination of Kakuta and Frey results in the claimed structure it is unclear how such structure will have a required axial force that is anymore "undefined" than applicant's.

Applicant's argument that Kakuta does not touch upon the problem of individual protection is noted but not persuasive. Applicant appears to be arguing the intended use of the protection afforded by the slipping of the locking element. As set forth above, the modified Kakuta device will afford protection via the slipping of the rectangular locking element. Whether such protection is for pedestrians or for vehicle components relates to the intended use of the device and does not act to distinguish.

Applicant's argument that Frey does not have any encircling bevel is noted but not understood. Frey clearly discloses an encircling bevel (7) which acts as a wedge on snap ring (8) to push such apart during axial displacement of the shaft (1). Applicant is referred to column 3, lines 1-26. Applicant's statement that sliding of the snap ring is not possible at all is not understood. Applicant's reference to a sleeve is noted, however it is not clear what applicant is referencing. If applicant is referencing the pinion (3), it is noted that such is provided with groove (5) to enable expansion of the ring. In any event, such is not particularly relevant as Frey is only relied upon to teach the rectangular transverse shape for the locking element. Applicant's suggestion that a combination of the Kakuta and Frey documents cannot result in the formation according to the claimed invention is noted but not persuasive. Both Kakuta and Frey are specifically directed to release of shafts for axial movement upon the application of impact forces.

Applicant's argument that neither Kakuta nor Frey address the problem of pedestrian impact is noted but not persuasive. As set forth above, such relates to the intended use for the release of the locking element and does not act to distinguish from the modified Kakuta device. Additionally, it is noted that the "problem" of pedestrian impact is not brought out in the claims as no reference is made thereto. Further, in response to applicant's argument, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K. Graham whose telephone number is 571-272-1274. The examiner can normally be reached on Tuesday to Friday (7:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on 571-272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary K Graham/
Primary Examiner, Art Unit 3727

GKG
07 October 2010